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BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER

ROBINSON BOYCE, AKIBA K

ART UNIT	PAPER NUMBER
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3639

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,833

Applicant(s)

KIM, KWANG-DUCK

Examiner

Akiba K. Robinson-Boyce

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/29/05 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

1. Due to communications filed 11/29/01, the following is a first non-final office action. Claims 1-28 are pending in this application and have been examined on the merits. Claims 1-28 are rejected as follows.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 13-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to a non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of :

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful art" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter. For a process claim, the recited process must somehow apply, involve, use, or advance the technological arts.

In the present case, claim 13 is directed to a fee collecting method for motor vehicles. Claim 13 recites the steps of "receiving the information of an entering motor vehicle...", "storing the information of the entering motor vehicle...", "receiving the information of a departing motor vehicle...", "storing the information of the departing motor vehicle...", "extracting the information of the entering motor vehicle...", "calculating a charge...", and "requesting a payment...". These steps do produce a tangible result, however they represent mere ideas in the abstract since they do not recite computer software or hardware embedded on a tangible medium for processing the steps of this claim. Since no computer software or hardware embodied on a tangible medium is present in this claim, this claim and all claims that depend from this claim (Claims 14-19) are therefore found to be non-statutory.

In the present case, claim 20 is directed to a fee collecting method for motor vehicles. Claim 20 recites the steps of "receiving the information of an entering motor vehicle...", "storing the information of the entering motor vehicle...", "receiving the information of an moving motor vehicle...", "storing the information of the moving motor vehicle...", "receiving the information of a departing motor vehicle...", "storing the information of the departing motor vehicle...", "extracting the information of the entering motor vehicle and the moving motor vehicle...", "calculating a charge...", and "requesting a payment...". These steps do produce a tangible result, however they represent mere ideas in the abstract since they do not recite computer software or hardware embedded on a tangible medium for processing the steps of this claim. Since no computer software or hardware embodied on a tangible medium is present in this

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claim, this claim and all claims that depend from this claim (Claims 21-28) are therefore found to be non-statutory.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 13 is rejected under 35 U.S.C. 102(e) as being anticipated by Anthonyson (US RE37,822).

As per claim 13, Anthonyson discloses:

receiving the information of an entering motor vehicle from the entering motor vehicle when the entering motor vehicle is detected, (col. 5, lines 12-28, vehicle approaches entrance lane and loop detector senses the vehicle, and detects information from the vehicle identifier tag or transponder);

storing the information of the entering motor vehicle received from the entering motor vehicle, (Col. 5, lines 30-36, shows that the vehicle identification number [detected from vehicle identifier tag or transponder at the entrance lane] is compared to a list of recognized identification numbers, in this case, the storage of this information is inherent since it needs to be stored by a computer in order to compare it with other information stored in a database in a computer);

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receiving the information of a departing motor vehicle from the going-out motor vehicle when the departing motor vehicle is detected, (col. 5, line 58-col. 6, line 5, when vehicle approaches exit lane, the detector detects information from the vehicle identifier tag or transponder);

storing the information of the departing motor vehicle received from the departing motor vehicle, (col. 6, lines 5-8, shows that the vehicle identification number [detected from vehicle identifier tag or transponder at the exit lane] is compared to a list of recognized identification numbers, in this case, the storage of this information is inherent since it needs to be stored by a computer in order to compare it with other information stored in a database in a computer);

extracting the information of the entering motor vehicle corresponding to the information of the departing motor vehicle when the storing of the information of the departing motor vehicle is completed, (Col. 6, lines 8-13, if identification number is found, a partial transaction record can be located in the database, and additional information will be known about the vehicle);

calculating a charge based on the information of the entering motor vehicle and the information of the departing motor vehicle, (Col. 6, lines 13-14, calculate appropriate costs); and

requesting a payment of the charge calculated in the calculating step, (col. 6, lines 19-26, parking costs shown on display, in this case, the display of the parking costs is analogous to the requesting payment since the costs are displayed to the driver of the vehicle upon opening the gate, and allowing the driver to park in a parking area

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that one must pay for each time the gate is opened, this allowing the driver to park in the area).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-12, 14-19, 21, 23, 25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anthonyson (US RE37,822) , and further in view of Wang (US 6,796,499).

As per claim 1, Anthonyson discloses:

a plurality of collecting systems transmitting payment request signals to a detected motor vehicle when the motor vehicle is detected, each collecting system outputting response signals of the payment request, an ID number and time information when the response signal to the payment request is received from the motor vehicle, (Abstract, lines 1-2, plurality of remote parking facilities that communicates with a vehicle with RF signals, col. 10, lines 41-45, a computer associated with each of the remote parking facilities for receiving a recognition signal and generating parking response signals, col. 2, lines 33-40, if vehicle is equipped with a transponder, a signal will return, which is processed to produce ID and date/time data);

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a motor vehicle control device mounted in the motor vehicle, the motor vehicle control device transmitting a... response signal to the payment request with information of the motor vehicle when the payment request signal is detected from the collecting system, (Col. 12, lines 1-3, a transponder in the vehicle for responding by returning an identification code to the sensor); and

a central system receiving and recording the response signal of payment request, the ID number and the time information output from the collecting system the central system calculating charges based on the recorded information when the motor vehicle goes out and requesting settlement of the payment, (Abstract, lines 4-10, where central computer is shown to provide a single bill to a user of several remote facilities, w/ Col. 10, lines 46-57 shows how central facility is coupled to a first computer, which is used to calculate parking fee statements for total fees due, w/ col. 11, lines 4-how vehicle is detected, and information such as the vehicle ID and date/time information is sent to the first computer [part of central facility], and the accounting module takes this information and uses it to calculate rates based each vehicle transponder account and parking times).

Anthonyson does not specifically disclose a payment request signal, however, the recognition signal of Anthonyson represents the payment request signal since this recognition signal is generated due to a vehicle that wants parking being detected, and fees are therefore calculated and implemented as a result of the vehicle being recognized as attempting to park in the facility.

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It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to transmit a payment request signal with the motivation of informing a toll facility that a vehicle would like to pay for toll services.

Anthonyson fails to disclose that a telephone number is transmitted from the motor vehicle control device, but does disclose that the transponder in the vehicle returns an identification code to the sensor in col. 12, lines 1-3.

However, Wang discloses:

transmitting a telephone number from the motor vehicle, (Col. 4, line 65-col. 5, line 3, shows that upon arriving at the entrance of the parking lot, a microprocessor is used to print the driver's mobile phone number on the card, meaning that the driver's mobile phone number was detected at arrival, and transmitted to the microprocessor for further processing). Wang discloses this limitation in an analogous art for the purpose of showing that a telephone system can be incorporated into a parking lot toll system.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to transmit a telephone number from the motor vehicle with the motivation of using the telephone number of the motor vehicle for identification purposes when the vehicle is detected passing through a fee collection system.

As per claim 2, Anthonyson discloses:

comprising payment system settling the payment of the charges when the payment is requested from the central system and notifying it to the central system, (col. 11, lines 21-34 and lines 50-51, shows the automated vehicle parking system has an

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accounting module that calculates costs, and shows crediting each remote parking facility with appropriate fees).

As per claim 3, Anthonyson discloses:

wherein the central system determines whether the motor vehicle enters or leaves based on the ID number, (Abstract, lines 1-13, shows a central system that provides a single bill based on vehicle identification number, and time of day).

As per claim 4, Anthonyson discloses:

wherein the central system adds all charges in all areas among the collecting systems if the collecting systems are installed in the areas where a motor vehicle is traveling, (col. 7, lines 23-29, monthly periodic statements for costs involved in parking transactions, w/ Abstract, lines 10-13, providing a single bill for total fees).

As per claim 5, Anthonyson discloses:

wherein the central system calculates the charges based on a period of time between an entrance time and a departure time of the motor vehicle if the collecting systems are installed in a parking area for parking the motor vehicle during a prescribed period of time, (Col. 1, lines 61-64, sensing lapsed time based on vehicle going through entrance gate and exit station, and computing a toll at tat predetermined time rate).

As per claim 6, Anthonyson discloses:

Wherein the collecting system has a payment request signal sending/receiving part, (col. 10, lines 41-45, a computer associated with each of the remote parking facilities for receiving a recognition signal and generating parking response signals, col. 2, lines 33-40).

Anthonyson does not specifically disclose a payment request signal, however, the recognition signal of Anthonyson represents the payment request signal since this recognition signal is generated due to a vehicle that wants parking being detected, and fees are therefore calculated and implemented as a result of the vehicle being recognized as attempting to park in the facility.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to transmit a payment request signal with the motivation of informing a toll facility that a vehicle would like to pay for toll services.

As per claim 7, Anthonyson discloses:

a payment request signal sending/receiving part for receiving payment request signals from the collecting system and sending response signals to payment request, (col. 10, lines 41-45, a computer associated with each of the remote parking facilities for receiving a recognition signal and generating parking response signals, col. 2, lines 33-40).

a motor vehicle information storage for storing...the number of motor vehicle and the kind of motor vehicle, (Col. 12, lines 1-3, a transponder in the vehicle for responding by returning an identification code to the sensor, w/ col. 1, lines 45-51, shows a card having a magnetic track containing a confidential identification number, and a label for sticking to the windshield of a vehicle with the label bearing information related to the stored in the card).

a controller extracting..., the number of motor vehicle and the kind of motor vehicle stored in the motor vehicle information storage when the payment requesting

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signal is detected from the payment request signal sending/receiving part and transmitting them to the payment request signal sending/receiving part, (col. 1, lines 45-51, a card reader for detection of an identification number for a vehicle through reading a magnetic track, in this case, in order for the identification number to be detected, it must be extracted from the magnetic track); and

an interface for transmitting data and control signals between the controller and the mobile terminal to the controller and the mobile terminal according to a designated protocol, (col. 6, line 66-col. 7, line 6, transmitting information about each attempted entrance or exit through the lane controller interface).

Anthonyson does not specifically disclose that the kind of motor vehicle is stored, however, the identification code is stored, which, in turn identifies the type of vehicle, for example, a VIN number, which is used at motor vehicles is always used to identify the type of car.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to store the type of vehicle with the motivation of identifying the vehicle by the model or class of vehicle.

Anthonyson fails to disclose that a user's mobile phone number is stored or extracted, but does disclose the storage of an identification code, and a card reader for detection of identification number for a vehicle through reading a magnetic track in col. 1, lines 45-51.

However, Wang discloses:

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Storing/extracting a user's mobile telephone number, (Col. 4, line 65-col. 5, line 3, shows that upon arriving at the entrance of the parking lot, a microprocessor is used to print the driver's mobile phone number on the card, meaning that the driver's mobile phone number was detected at arrival, and transmitted to the microprocessor for further processing, in this case, the phone number must be stored after detection in order to transmit it, and also must be extracted in order to retrieve this number and print it on a card). Wang discloses this limitation in an analogous art for the purpose of showing that a telephone system can be incorporated into a parking lot toll system.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to store a user's mobile phone number with the motivation of making the user's mobile phone number available for vehicle identification purposes.

As per claims 8, 11, Anthonyson discloses:

a display for displaying the status of a payment request and a process result on a screen, (col. 1, lines 15-19, fee display);

Anthonyson fails to disclose a sound output part for outputting the status of the payment request and the process result in sound, but does disclose a computer database that includes data representing status of each vehicle tag identification number in col. 11, lines 10-13.

However, Wang discloses:

a sound output part for outputting the status of the payment request and the process result in sound, (Col. 3, line 61-col. 4, line 4, voicer). Wang discloses this

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limitation in an analogous art for the purpose of showing that a voicer is used as an output device in a parking toll system.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use a sound output for outputting the status of the payment request with the motivation of allowing the user to hear the status of the payment request.

As per claims 9, 12, Anthonyson discloses:

a key input part for inputting an order to refer to the status of the payment request and the process result, (Col. 7, lines 45-47, input for billing information);

Anthonyson fails to disclose a sound input part for inputting a voice order to refer to the status of the payment request and the process result, but does disclose a computer database that includes data representing status of each vehicle tag identification number in col. 11, lines 10-13.

However, Wang discloses:

a sound input part for inputting a voice order to refer to the status of the payment request and the process result, (Col. 5, lines 41-43, voicer requires input). Wang discloses this limitation in an analogous art for the purpose of showing that a voicer is used as an input device in a parking toll system.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to use a sound input for inputting a voice order to refer to the status of the payment request with the motivation of allowing the speak status information into the system.

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As per claims 10, 14, 16, 21, 23, 25, Anthonyson discloses:

a payment request signal sending/receiving part for receiving payment request signals and sending response signals to payment requests, col. 10, lines 41-45, a computer associated with each of the remote parking facilities for receiving a recognition signal and generating parking response signals, col. 2, lines 33-40);

a motor vehicle information storage for storing...the license number of motor vehicle and the kind of motor vehicle of a user/wherein the information of the entering [of the going-out/departing] motor vehicle received in the step of receiving the information of the entering motor vehicle includes...the license number of the motor vehicle and the kind of the motor vehicle , (col. 1, lines 45-51, shows a card having a magnetic track containing a confidential identification number of a vehicle, and a label for sticking to the windshield of a vehicle with the label bearing information related to the stored in the card, in this case, the vehicle label is analogous to a license number of a motor vehicle since both are tags physically placed on the vehicle, and used to identify the vehicle);

a controller extracting...the number of motor vehicle and the kind of motor vehicle stored in the motor vehicle information storage when the payment request signal is detected from the payment request signal sending/receiving part and transmitting them to the payment requesting signal sending/receiving part, (col. 1, lines 45-51, a card reader for detection of an identification number for a vehicle through reading a magnetic track, in this case, in order for the identification number to be detected, it must be extracted from the magnetic track); and

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an interface for transmitting data and control signals between the controller and the mobile terminal to the controller and the mobile terminal according to a designated protocol, (col. 6, line 66-col. 7, line 6, transmitting information about each attempted entrance or exit through the lane controller interface).

Anthonyson does not specifically disclose a payment request signal, however, the recognition signal of Anthonyson represents the payment request signal since this recognition signal is generated due to a vehicle that wants parking being detected, and fees are therefore calculated and implemented as a result of the vehicle being recognized as attempting to park in the facility.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to transmit a payment request signal with the motivation of informing a toll facility that a vehicle would like to pay for toll services.

Anthonyson does not specifically disclose that the kind of motor vehicle is stored, however, the identification code is stored, which, in turn identifies the type of vehicle, for example, a VIN number, which is used at motor vehicles is always used to identify the type of car.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to store the type of vehicle with the motivation of identifying the vehicle by the model or class of vehicle.

Anthonyson fails to disclose that a user's mobile phone number is stored or extracted, but does disclose the storage of an identification code, and a card reader for

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detection of identification number for a vehicle through reading a magnetic track in col. 1, lines 45-51.

However, Wang discloses:

Storing/extracting a user's mobile telephone number, (Col. 4, line 65-col. 5, line 3, shows that upon arriving at the entrance of the parking lot, a microprocessor is used to print the driver's mobile phone number on the card, meaning that the driver's mobile phone number was detected at arrival, and transmitted to the microprocessor for further processing, in this case, the phone number must be stored after detection in order to transmit it, and also must be extracted in order to retrieve this number and print it on a card,). Wang discloses this limitation in an analogous art for the purpose of showing that a telephone system can be incorporated into a parking lot toll system.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to store a user's mobile phone number with the motivation of making the user's mobile phone number available for vehicle identification purposes.

As per claims 15, 17, Anthonyson discloses:

wherein the step of storing the information of the, entering/departing motor vehicle includes a step of storing the time of receiving the information of the entering/departing motor vehicle, (col. 2, lines 33-40, date/time data and lane number is coupled to the host computer, where the lane number is analogous to the identifier of the device detecting the motor vehicle since the device detecting the motor vehicle is installed in the lane).

As per claims 18, 27, Anthonyson discloses:

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Wherein the step of calculating the charge includes a step of calculating a value, from the time of receiving the information of the entering motor vehicle to the time receiving the information of the departing motor vehicle, as the charge, (col. 1, lines 60-64; sensing lapsed time between initiating opening of an entrance gate and an exit station, and computing a toll based on that information).

As per claim 19, Anthonyson fails to disclose wherein the step of requesting the payment includes a sending a request of the payment to the mobile communication service company of the telephone number of the mobile terminal included in the information of the motor vehicle, but does disclose an automated vehicle parking system for providing a single bill to a user of several remote facilities in the abstract, lines 1-13.

However, Wang discloses:

wherein the step of requesting the payment includes a sending a request of the payment to the mobile communication service company of the telephone number of the mobile terminal included in the information of the motor vehicle, (Col. 4, line 59-col. 5, line 3, shows driver dials parking lot telephone number when arriving at the entrance of the parking lot). Wang discloses this limitation in an analogous art for the purpose of showing that a driver utilizing a parking toll system can access the system by way of parking lot telephone number.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to send a request of the payment to the mobile communication service company of the telephone number of the mobile terminal included in the

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information of the motor vehicle with the motivation of incorporating mobile telecommunications into a toll collection system.

As per claim 28, Anthonyson fails to disclose wherein the step of requesting the payment includes a sending a request of the payment to the mobile communication service company of the telephone number of the mobile terminal included in the information of the motor vehicle, but does disclose an automated vehicle parking system for providing a single bill to a user of several remote facilities in the abstract, lines 1-13.

However, Wang discloses:

wherein the step of requesting the payment includes a sending a request of the payment to the mobile communication service company of the telephone number of the mobile terminal included in the information of the motor vehicle, (Col. 4, line 59-col. 5, line 3, shows driver dials parking lot telephone number when arriving at the entrance of the parking lot). Wang discloses this limitation in an analogous art for the purpose of showing that a driver utilizing a parking toll system can access the system by way of parking lot telephone number.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to send a request of the payment to the mobile communication service company of the telephone number of the mobile terminal included in the information of the motor vehicle with the motivation of incorporating mobile telecommunications into a toll collection system.

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8. Claims 20, 22, 24, 26, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anthonyson (US RE37,822).

As per claim 20, Anthonyson discloses:

receiving the information of an entering motor vehicle from the entering motor vehicle when the entering motor vehicle is detected, (col. 5, lines 12-28, vehicle approaches entrance lane and loop detector senses the vehicle, and detects information from the vehicle identifier tag or transponder);

storing the information of the entering motor vehicle received from the entering motor vehicle, (Col. 5, lines 30-36, shows that the vehicle identification number [detected from vehicle identifier tag or transponder at the entrance lane] is compared to a list of recognized identification numbers, in this case, the storage of this information is inherent since it needs to be stored by a computer in order to compare it with other information stored in a database in a computer);

receiving the information of a moving motor vehicle from the moving motor vehicle when the moving motor vehicle is detected, (col. 5, line 58-col. 6, line 5, when vehicle approaches exit lane, the detector detects information from the vehicle identifier tag or transponder, in this case, the vehicle is approaching the exit lane and is therefore moving);

storing the information of the moving motor vehicle received from the moving motor vehicle, (col. 6, lines 5-8, shows that the vehicle identification number [detected from vehicle identifier tag or transponder at the exit lane] is compared to a list of recognized identification numbers, in this case, the storage of this information is

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inherent since it needs to be stored by a computer in order to compare it with other information stored in a database in a computer, in this case, the vehicle is approaching the entrance lane and is therefore moving);

receiving the information of a departing motor vehicle from the going-out motor vehicle when the departing motor vehicle is detected, (col. 5, line 58-col. 6, line 5, when vehicle approaches exit lane, the detector detects information from the vehicle identifier tag or transponder);

storing the information of the departing motor vehicle received from the departing motor vehicle, (col. 6, lines 5-8, shows that the vehicle identification number [detected from vehicle identifier tag or transponder at the exit lane] is compared to a list of recognized identification numbers, in this case, the storage of this information is inherent since it needs to be stored by a computer in order to compare it with other information stored in a database in a computer);

extracting the information of the entering motor vehicle and the moving motor vehicle corresponding to the information of the departing motor vehicle when the storing of the information of the departing motor vehicle is completed, (Col. 6, lines 8-13, if identification number is found, a partial transaction record can be located in the database, and additional information will be known about the vehicle);

calculating a charge based on the information of the entering motor vehicle, the information of the departing motor vehicle, and the information of the moving motor vehicle, (Col. 6, lines 13-14, calculate appropriate costs); and

requesting a payment of the charge calculated in the calculating step, (col. 6, lines 19-26, parking costs shown on display, in this case, the display of the parking costs is analogous to the requesting payment since the costs are displayed to the driver of the vehicle upon opening the gate, and allowing the driver to park in a parking area that one must pay for each time the gate is opened, this allowing the driver to park in the area).

In the instant case, Anthonyson does not specifically disclose that the entering motor vehicle, the departing motor vehicle, and the moving motor vehicle are 3 separate states of the motor vehicle, however, both the entering motor vehicle and the departing motor vehicle are moving motor vehicles, therefore, the motor vehicle of Anthonyson contains 2 states at the same time, and Anthonyson indirectly teaches these 3 states. Anthonyson also discloses that lapsed time is sensed between the opening of an entrance gate and an exit station for determining a toll for a moving vehicle in col. 1, lines 60-64.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have an entering motor vehicle, a departing motor vehicle and a moving motor vehicle for the purpose of acknowledging the states of the vehicle so a proper fare can be determined.

As per claims 22, 24, 26, Anthonyson discloses:

wherein the step of storing the information of the entering/departing motor vehicle includes a step for storing an identifier of the device detecting the entering motor vehicle and the time of receiving the information of the entering/departing motor vehicle, (col. 2,

lines 33-40, date/time data and lane number is coupled to the host computer, where the lane number is analogous to the identifier of the device detecting the motor vehicle since the device detecting the motor vehicle is installed in the lane)

As per claim 27, Anthonyson discloses:

wherein the step of calculating the charge includes a step of calculating a value between areas of the identifiers of the devices, which detects the motor vehicle, based on the information of the entering motor vehicle, the information of the moving motor vehicle and the information of the departing motor vehicle, (col. 1, lines 60-64, sensing lapsed time between initiating opening of an entrance gate and an exit station, and computing a toll based on that information.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akiba K Robinson-Boyce whose telephone number is 571-272-6734. The examiner can normally be reached on Monday-Tuesday 8:30am-5pm, and Wednesday, 8:30 am-12:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7238 [After final communications, labeled "Box AF"], 703-746-7239 [Official Communications], and 703-746-7150 [Informal/Draft Communications, labeled "PROPOSED" or "DRAFT"].

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



A. R. B.

October 14, 2005